

Central Caribbean Marine Institute – Little Cayman Research Station (CCMI-LCRC)

NEW WINTER INTERNSHIP PROGRAM - THREATENED AND ENDANGERED CORAL SPECIES

*APPLICATION DEADLINE NOVEMBER 1ST, 2016

DO YOU WANT TO CONTRIBUTE TO CORAL CONSERVATION RESEARCH?

The CCMI-LCRC in the Cayman Islands is recruiting interns for an exciting new coral reef ecology and restoration project. Escape the winter and help us to kick start our Disney Worldwide Conservation Foundation project, spending two weeks diving alongside CCMI's scientists researching Evolutionarily Distinct and Globally Endangered (EDGE) corals.

Through extensive diving on some of the world's most pristine reef ecosystems, gain hands-on experience in coral reef conservation through a range of research streams including:

- Quantifying abiotic conditions of reef micro-habitats using onset technology in order to optimize coral reef restoration efforts
- Learn to use cutting edge 3D habitat mapping software to assess coral outplant growth, density dependent effects of coral outplants on reef recovery, and to select optimal versus non-optimal outplant sites
- Determining localized extinction risks of endangered corals to aid coral reef conservation

LENGTH OF INTERNSHIP:

January 2nd -15th, 2017

EXPERIENCE YOU WILL GAIN:

- Minimum of 15 + research dives (weather permitting)
- Knowledge of coral reef ecology; including Caribbean coral, algae and fish identification workshops
- Skills in underwater field research methods
- Working with EDGE coral fragments in a nursery setting through multiple growth methods, such as; trees, lines, and tables
- Direct handling and outplanting of EDGE coral species (specifically *Acropora cervicornis* and *Acropora palmata*)
- Practical skills in choosing, establishing, and monitoring a coral restoration research site
- Instruction on creating an experimental design, data collection, and data analysis
- Building photo-mosaics and underwater maps to aid in habitat restoration techniques on coral reefs
- Analyze coral reef images using imaging analysis software (CPCe, CORALNET, and AgiSoft)

*CCMI will issue a Certificate of Completion of 45 hours in Coral Reef Research and Spatial Ecology at the completion of the internship

REQUIREMENTS:

We seek to fill a number of intern positions over a 14-day period during the 2016/2017 winter break. Intern requirements include:

- 18+ years of age
- Open Water Diver with at least 20 logged dives (Advanced certification or higher preferred)
- Insured through DAN
- Current enrollment in an undergraduate program with a focus in Marine Science, Biology, Environmental Science or some other related field (or a recent graduate)
- Must be physically fit to work long field days in the sun and on the water

PRICE:

An internship fee of US\$2,600 will cover:

- On site accommodations for a 14-night stay
- Three meals a day
- Roundtrip airport transportation
- Boat time
- All research dives and snorkels
- All SCUBA gear rental (you will need to provide your own mask, fins and snorkel)
- All necessary field equipment
- The use of CCMI-LCRC bicycles
- All offered course work (cumulating in 45 hours of work in Coral Reef Ecology and Spatial Ecology)

*This fee does not cover flight costs and DAN dive accident insurance

BACKGROUND AND RATIONALE:

Whole economies and stable societies are rooted in healthy environments. For the Cayman Islands, coral reefs are one of the nation's greatest treasures that brings economic value and positive public relations to the country. On a global scale, coral reefs are at a heightened threat due to climate change, ocean acidification, and direct human impacts. While the average coral cover in the Caribbean has dropped to 14 %, average coral cover in Little Cayman is > 20 % which makes Little Cayman an ideal location to study why some reefs are capable of recovering while others in the region continue their decline. During a 2015 temperature induced bleaching event, local EDGE corals were moderately to severely impacted, however by 2016, the corals had recovered. This recovery demonstrates the potentially resilient capabilities of EDGE corals locally around the reefs of Little Cayman, Cayman Islands. Restoration efforts of several threatened coral species (specifically *Acropora cervicornis* and *Acropora palmata*) have since expanded throughout the Greater Caribbean Basin to assist with species recovery efforts and have proven successful in growing new corals to assist natural populations. However, what is unknown is whether certain outplant designs for EDGE species restoration efforts, will result in improved growth, survival, and most importantly, reproduction in the wild.

PLEASE SEND THE FOLLOWING to kcorreia@reefresearch.org (no later than November 1st, 2016):

- A letter of interest (maximum 500 words)
- Resume
- Two references
- A \$500USD deposit is necessary to secure internship

*CCMI will endeavor to fulfill all research dives, however if weather conditions are deemed too dangerous we reserve the right to postpone diving activity until the next safest period.